Topical Use of Cortisone in Erythema Multiforme Bullosum

Report of a Case

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TOPICAL application of cortisone, a method of use on which no report could be found in the literature, was employed with good result in a case of vesicular and bullous dermatosis.

An 85-year-old white woman had been confined to bed for three years with paresis of the right arm and leg following a cerebral hemorrhage from hypertension. Cardiac decompensation also was present, and from time to time numerous drugs, including sedatives, diuretics, laxatives, and cardiac medications had been given. Three weeks before the patient was observed by the author, bullae and vesicles began to develop. When first observed the patient had many discrete bullae, ranging in size from that of a grape to that of a lemon, scattered heavily over the arms, legs, chest, abdomen and back. Many of the bullae were on a non-erythematous base. Nikolsky's sign was absent. There was one small ulcer in the mouth. On the back were many erythematous macular iris lesions. A diagnosis of erythema multiforme bullosum was made.

Dressings soaked in a 1:8000 solution of potassium permanganate were applied and Benadryl® was given by mouth. All former medication was discontinued, but on the advice of an internist digitalis therapy was started. New vesicles and bullae continued to appear and the condition of the patient appeared to be deteriorating. Cortisone was given intramuscularly, 200 mg. the first day and 100 mg. daily thereafter. The patient's spirit rose and there was some lessening of the discomfort from the bullae. Involution of the lesions was hastened somewhat, but at the end of three weeks of intramuscular cortisone therapy, new vesicles and bullae were still appearing. Although the patient felt much better, the clinical improvement was slight. A salve made of 100 mg. of cortisone and 240 gm. of a water-soluble base was applied liberally to all lesions twice a day. At the end of three days, 90 per cent of the lesions had involuted completely, leaving only slight erythema. The lesions which cleared included vesicles, bullae, herpes iris, and the dried hard black crusts remaining at the site of previously involuted bullae. At the end of a week almost every lesion had cleared, except for a few new vesicles. No undesirable side effects were observed.

SUMMARY

A severe case of erythema multiforme bullosum was treated topically with cortisone. The vesicles, bullae, drying crusts, and herpes iris lesions cleared quickly and dramatically after only slight improvement with cortisone given intramuscularly.

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Paroxysmal Hypertension Secondary to Malignant Pheochromocytoma

Report of a Case and Review of the Literature

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MALIGNANT, metastasizing pheochromocytomas producing paroxysmal hypertension have not been previously described in the medical literature.

In the case here reported the patient, first observed because of a tumor of the cervical spinal cord, was found to have paroxysmal hypertension in which a paroxysm could be precipitated by palpating a mass in the right side of the abdomen. This mass was a malignant pheochromocytoma and the spinal cord tumor was metastatic from it.

Only eight cases of malignant pheochromocytoma have been reported in the literature.[1, 2, 3, 4, 5, 6, 7, 8] Paroxysmal hypertension was not observed in any of these cases.

CASE REPORT

A 47-year-old white male was admitted to the hospital with complaint of inability to move the legs, weakness of the right arm and loss of bladder and bowel control. The illness was of two months' duration.

The patient had been well until attacks of headache, dizziness and a sensation of "pounding in the chest" began. These attacks were precipitated by excitement or by lying on the right or left side.

Four months prior to hospitalization the patient began to have aching pain in the right shoulder and a month later noticed tingling and numbness of the fingers of the right hand. Two months after this the patient awoke one morning unable to move the right leg and unable to initiate micturition. In the following month complete paraplegia developed, with loss of bowel and bladder control. Ulcers formed over the sacrum.

Upon admission to hospital the patient was emaciated. There was pronounced atrophy of the right arm and of both lower extremities. Frequent spasmodic movements of the legs were observed. There were three decubitus ulcers over the sacrum. The blood pressure was 130 mm. of mercury systolic and 90 mm. diastolic.

A firm, mobile mass about 10 cm. in diameter was palpated in the right upper quadrant of the abdomen. Manipulation of the mass precipitated an attack of dizziness, headache and palpitation of the heart similar to the spontaneous attacks previously described by the patient. The blood pressure was observed while the mass was being palpated and it rose from 130 mm. of mercury systolic and 90 mm. diastolic to 245 mm. and 145 mm. respectively. In association with this change, pronounced constriction of the retinal arterioles was observed ophthalmoscopically.

In examination of the cranial nerves no abnormalities were noted. There was a zone of hypalgesia and hypesthesia on the left side of the body below the level of the fourth cervical dermatome. There was mild hyperesthesia of the body below this level. Weakness of spastic type was noted in the right arm and both legs; it was most pronounced in the right leg. Reflexes were generally hyperactive and a positive Babinski response was elicited in the right foot. There was pronounced loss of tone of the anal sphincter.

Special Studies:

Blood cell counts were normal except that leukocytes numbered 13,450 per cu. mm. (The patient had cystitis.)

The spinal fluid was normal dynamically and chemically.

In chemical analysis of the blood the following abnormalities were noted: sodium chlorides, 103.3 mg. per 100 cc.; sugar, 66.0 mg. per 100 cc.; phosphatase, 6.0 Bodansky units.

Results of studies of the urine were within normal limits.

In an intravenous pyelogram, distortion and downward displacement of the right kidney by a large mass at its upper pole was observed.

In a film of the cervical vertebrae, erosion of the right pedicles in the lower cervical region (Figure 1) was noted.

In a Pantopaque® myelogram there was a filling defect extending upward from the first thoracic vertebra (Figure 1).

Injection of 0.5 mg. of histamine produced a rise in the blood pressure from 120 mm. of mercury systolic and 70 mm. diastolic to 225 mm. and 130 mm. respectively (see chart).

The patient was placed on a diet high in proteins, and 25 mg. of testosterone propionate was given intramuscularly daily. This restored a positive nitrogen balance. Infrared therapy to the decubitus ulcers combined with the positive

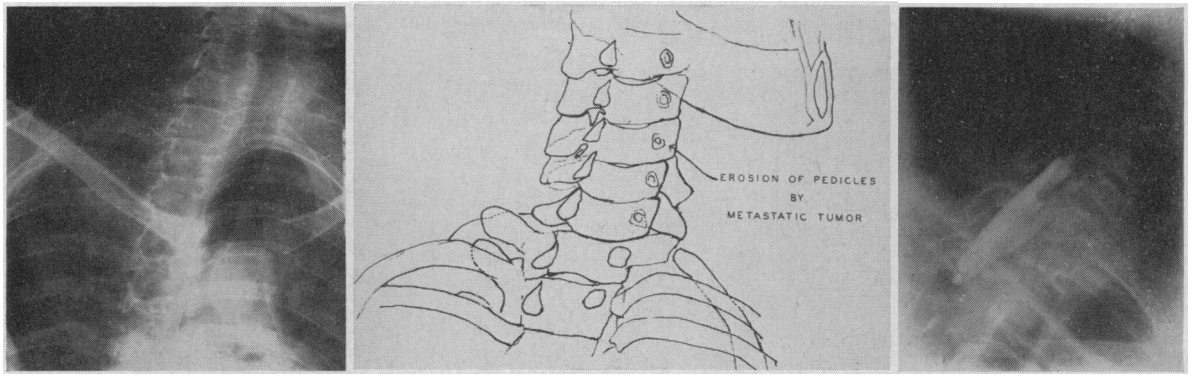
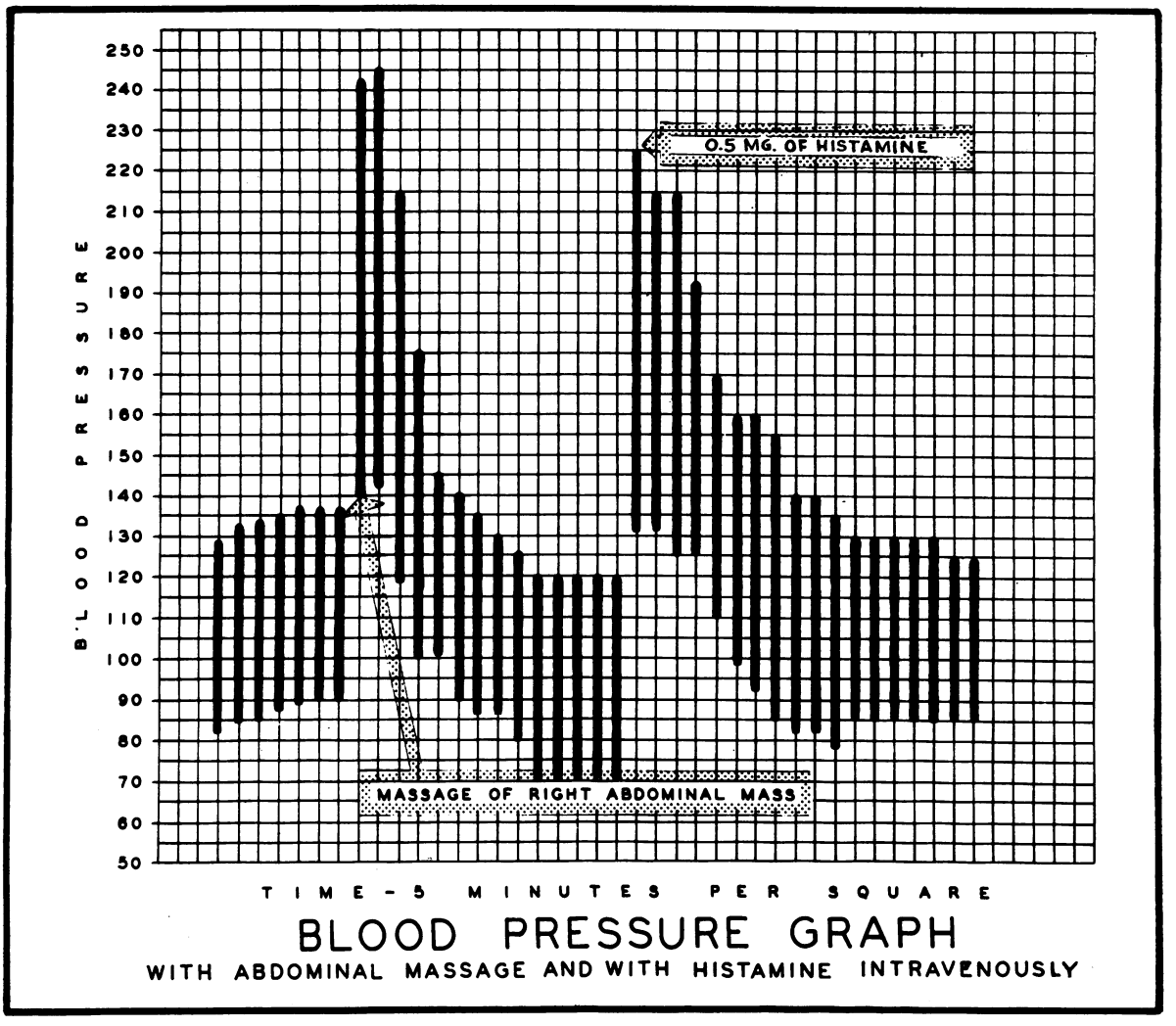


Figure 1.—*Left,* x-ray film of cervical vertebrae. *Center,* tracing of x-ray film. *Right,* cervical myelogram showing filling defect.



nitrogen balance resulted in prompt healing. Tolserol® (mephenesin) given in doses of 2 gm. three times a day decreased the painful spasticity of the lower extremities.

When the patient's general condition had sufficiently improved, cervical laminectomy was done. The laminae were exposed from the second thoracic to the fourth cervical spine. A reddish-yellow tumor mass was observed extending between the laminae of the sixth and seventh cervical vertebrae (Figure 2, arrow). The laminae beneath the tumor were moth-eaten in appearance and soft and spongy to palpation. The tumor invaded the musculature of the neck and extended extradurally to involve the anterior and right lateral surface of the dura. It extended downward in a thin sheet in the spinal canal and was closely adherent to the dura. Complete removal was impossible. Postoperatively the patient regained considerable motion of the legs and was able to control the anal sphincter.

One month later the abdominal tumor was removed through a right lumbar incision. It was a firm reddish-yellow mass that was well encapsulated (Figure 2). When the tumor was manipulated in the process of removal, the blood pressure rose from 120 mm. of mercury systolic and 90 mm.

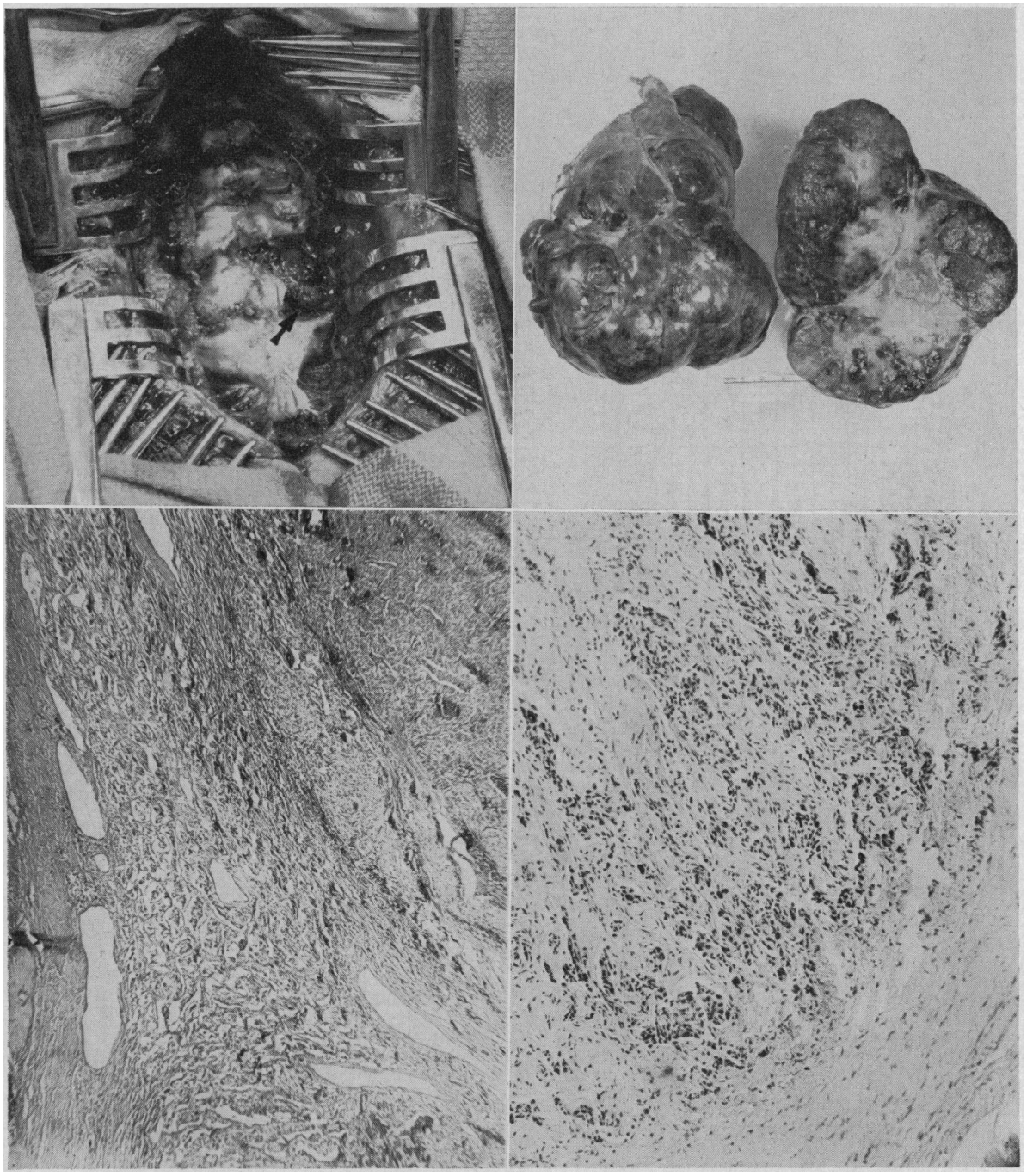


Figure 2.—*Upper left,* primary tumor protruding between the laminae. *Upper right,* primary adrenal tumor. *Lower left,* photomicrograph of the primary tumor (× 35). *Lower right,* photomicrograph of metastatic tumor (× 35).

diastolic to 260 mm. and 170 mm. respectively, and it was necessary to administer benzodioxane to lower it to a safe level until the pedicle could be ligated.

Following operation the blood pressure was maintained by giving 2.5 cc. of lipoadrenal extract intramuscularly every six hours and by continuous intravenous drip of epinephrine solution that was titrated to maintain the blood pressure at 140 mm. of mercury systolic and 90 mm. diastolic. The postoperative course was complicated by the development of a slough of tissue at the site of the intravenous epinephrine injection. This was repaired by a skin graft from the thigh. A course of deep x-ray therapy to the cervical area was given in hope of checking the growth of the remaining tumor there. There were no further attacks of hypertension following removal of the primary tumor.

DISCUSSION

Calkins and Howard[3] pointed out that there are reports of 176 cases of surgically treated pheochromocytomas in the literature and that in 15 cases the lesions were bilateral. In five of the cases of bilateral tumor the growth was malignant. None of the patients with malignant tumors had either constant or paroxysmal hypertension. McGavack and co-workers[6] found reports of only eight cases of malignant pheochromocytoma in the literature and noted that in none of these was hypertension observed. "It seems important," these investigators stated, "to emphasize not only its [hypertension's] complete absence in the malignant forms but also its failure to appear in slightly less than 50 per cent of the benign cases." Bauer and Belt[1] in a discussion of malignant pheochromocytoma mentioned the eight reported cases and concluded that paroxysmal hypertension does not occur with malignant tumors of this type. Hyman and Mencher[5] pointed out that pheochromocytomas have been known to develop simultaneously in two or more sites. Philips[7] reported observation of intrathoracic pheochromocytomas. Eisenberg and Wallerstein[4] commented on the concomitant occurrence of pheochromocytomas and other types of tumors and noted that the only significant association is with the neurofibromata. They found reports of nine cases of this combination in the literature. In the present instance the primary tumor (Figure 2) was histologically identified as a malignant pheochromocytoma. Microscopic study of the metastatic tumor (Figure 2) proved its origin from the primary adrenal tumor. Many cells with large irregular nuclei containing two or more nucleoli eccentrically placed were observed in these sections. Sinusoidal spaces were frequent. In hematoxylin-eosin stained sections the cell cytoplasm was observed to be faintly acidophilic and there were occasional bluish granules. There were some long polyhedral cells varying from 10 to 50 micra in length.

SUMMARY

A case of malignant pheochromocytoma giving rise to severe attacks of paroxysmal hypertension and with metastasis to the cervical spine producing a pseudo Brown-Sequard syndrome is described.

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Injurious Effects from the Sting of the Scorpionfish, *Scorpaena guttata*

With Report of a Case

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ONE of the most noxious marine animals in California waters is *Scorpaena guttata* Girard, the scorpionfish. This creature is a member of the family Scorpaenidae, the rockfishes, which are commercially sold under the name of rock cod. There are three genera and about 54 species in this family which inhabit the California coast. All of them are marine forms. The scorpionfish is the only local member of this family considered to be venomous. However, all of them have formidable dorsal spines which are capable of inflicting painful wounds. Stings from *Scorpaena grandicornis* Cuv. & Val., which is found throughout the tropical Atlantic, may be fatal.[6] Barnhart[1] and Roedel[7] in their discussions of the marine fishes of California briefly stated that *S. guttata* is capable of inflicting severe wounds with its sharp spines and that intense pain and swelling may result. Any fisherman who has had an encounter with this fish will testify to its venomosity and to the fact that it must be handled with care. Despite the number of stings that occur yearly in California, little has been written about this matter.

HABITS AND DISTRIBUTION OF THE FISH

The scorpionfish ranges from central California on south to Baja California. The fish may be captured on hook and line from piers or barges most of the year, the catch usually reaching a seasonal peak during late spring and summer. It is a shallow-water bottom-dweller and is generally found in bays, along sandy beaches or rocky coast line. When the fish is removed from the water it has the defensive habit of erecting its spinous dorsal fin and flaring out its armed gill covers and pectoral, ventral and anal fins. The pectoral fin, while dangerous in appearance, is the only fin that is unarmed. Wounds are generally inflicted by the spines of the gill covers and fins when the hook is being removed from the fish.

Very little is known about the poison or structure of the venom apparatus of *Scorpaena guttata*, although it is assumed that the apparatus is similar to that of *S. porcus* Linnaeus of Europe, which has been studied in detail.[3, 4, 5, 8]

The anterior halves of the dorsal spines are bilaterally grooved. Lying within each of these grooves is a long, thin strip of glandular epithelium which secretes the venom. The spines and glandular tissue are ensheathed by the interspinous membrane. The venom flows out between the layer of cells and the ensheathing membrane, which is pushed back as the spine penetrates the flesh of the victim. The resulting pressure on the glandular tissues aids in the secretion of the venom. The spines on the head of the fish are thought to be similar in structure to the dorsal spines. The action of the venom and spines is being studied and will be reported elsewhere at a later date.

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